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New York, NY 10017

EXAMINER

CHIN, PAUL T

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,041

Applicant(s)

REINERS ET AL.

Examiner

PAUL T. CHIN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-12, 16-20 and 23-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-36 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 9-12, 16-20, 23-27, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 5 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

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1. The amendment filed on March 25, 2003 and the arguments presented therewith have been carefully considered. Regarding Weller [US Patent 3,655,013] in view of Decker et al. [US Patent 5,529,163], they appear to be persuasive. Therefore, the rejections of claims 1-7,9-12,16-18,20,25-30, have been withdrawn (claims 8,13-15,21, and 22 have been canceled). However, regarding Klockow et al. [the German Patent DE 2,456,791] in view of Engeler [the German Patent DE 2,009,806], they are not persuasive. Claims 1,2, and 9 remains rejected by Klockow et al. [the German Patent DE 2,456,791] in view of Engeler [the German Patent DE 2,009,806]. The examiner provides the Great Britain Patent [GB 1,256,484], which appears to have the same applicant as the German Patent [DE 2,009,806]. Claim 10 is rejected by Klockow et al. [the German Patent DE 2,456,791] and the Great Britain Patent [GB 1,256,484] or the German Patent [DE 2,009,806] and further in view of the Germany Patent [DE 3,431,402]. Claims 11 and 12 are also rejected by Klockow et al. [the German Patent DE 2,456,791] and the Great Britain Patent [GB 1,256,484] and further in view of Decker et al. [US Patent 5,529,163] or Ackerson [US Patent 4,149,341]. Moreover, claims 1-4,6,7,25-27, and 20, have been considered but are moot in view of the new ground(s) of rejection by the German Patent [DT 2,916,818] in view of the British Patent [GB 1,256,484] or Engeler [the German Patent DE 2,009,806].

Claim Objections

2. Claim 16 is objected to because of the following informalities: it appears in claim 16, in line 23, that the word -- said -- should be inserted before "load items" since the first "load items" is recited in line 16. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 16-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis for "said load-carrying frame" (claim 16, line 17).

Moreover, it appears that the phrase -- of said cart -- should be inserted after the phrase "said load-carrying frame" (claim 16, line 17) and the word "a" (claim 16, line 18) before "load-carrying frame" should be changed to -- said -- in order to clearly point out the claimed subject matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4,6,7,25-27,29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **the German Patent [DT 2,916,818]** in view of **the British Patent [GB 1,256,484]** or **Engeler [the German Patent DE 2,009,806]**.

The German Patent [DT 2,916,818] discloses a cart conveyor system moving from one level to another level, comprising an inclined conveyor mechanism including laterally spaced, opposed endless conveyor bands (7) (Fig. 2), and wheeled load carrying cart (2) (Fig. 1) having a frame and having front, and back ends, the cart being provided with spaced apart first wheels (4,4) at one end and wheel means which has at least one wheel (3,3), said wheel being mounted

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for rotation about axles; and the conveyor mechanism having track means (5,6) (see Fig. 2) for the respective sets of first and second wheels at opposite ends of the cart whereby the cart is maintained in a substantially horizontal orientation (see Fig. 1) while engaged by the conveyor mechanism, the improvement comprising the conveyor bands (7,8) (see Fig. 2) being engageable with the cart closely adjacent the first wheels (4,4) for controlling the advance of the cart along the conveyer mechanism.

The German Patent's cart conveyor system [DT 2,916,818] does not show *a retaining track* extending lengthwise along the inclined conveyor mechanism and *an anti-lift* extending between the cart and the retaining track adjacent the other end of the cart.

However, **the British Patent [GB 1,256,484] or Engeler [the German Patent DE 2,009,806]** shows *a retaining track* (5,5.1,5.2,16,17) (Figs. 2 and 5) extending lengthwise along the inclined conveyor mechanism and a vertical fork (4.2) (see Fig. 3) or a vertical retaining element, which can be considered as *an anti-lift*, extending between the cart and the retaining track adjacent the other end of the cart wherein the vertical fork (4.2) is fixed on the cart (4) and the retaining element *being separate from and extending downwardly to a point below the axles of the wheels* (see Figs. 2 and 5). Figure 3 shows the vertical fork (4.2) having a front arm (4.21) and a rear arm (4.22) and a drive chain (5,5.1) having brackets (5.2) and drive pins (15) to rest against the front arm (4.22) while the cart is moving upwardly. It appears that the front arm (4.21) would not help the cart as an anti-lift device. However, during the downward movement of the cart, the cart (4) rests with the rear arm (4.22) of the vertical fork on the drive pins (15) (see page 2, lines 88-97). The rear arm (4.22) of the vertical fork (4.2) would prevent a lifting of

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the cart by resting against the pin (15) during the downward movement of the cart. Therefore, the vertical fork (4.2) could be substantially considered as anti-lift element.

Accordingly, it would have been an obvious to one of the ordinary skill in the art at the time the invention was made to provide *a retaining track* and *an anti-lift element* on the German Patent's cart conveyor system [DT 2,916,818] as taught by the British Patent [GB 1,256,484] not only to guide and maintain the cart in the center line but also to help maintain the stability and against lifting of the cart during the downward movement of the cart.

Re claims 3,6, and 7, the modified German Patent's cart conveyor system [DT 2,916,818] shows *an abutment bracket* (25) (see Fig. 3) or *a wheel mounting bracket* mounted on the cart laterally adjacent to and laterally outside of the first wheels (4) and the conveyor bands (7,8) are engageable with the brackets (25).

Re claim 27, the modified German Patent's cart conveyor system [DT 2,916,818] shows the retaining track having inwardly directed flanges (5.2) (see Figs. 2 and 5) in an upper portion of the track and the anti-lift element (4.2) extends downwardly from the frame of the cart to engage the flanges of the retaining track.

Re claims 29 and 30, the modified German Patent's cart conveyor system [DT 2,916,818] further shows that one or more conveyor bands (8) are engagable with the cart adjacent to the back and at a level adjacent to the level of the first wheels (4) (see Fig. 3) through the bracket (25).

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7. Claims 1,2, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Klockow et al. [the German Patent DE 2,456,791]** in view of the **British Patent [GB 1,256,484]** or **Engeler [the German Patent DE 2,009,806]**.

Klockow et al. [German Patent DE 2,456,791] discloses a cart conveyor system comprising an inclined conveyor mechanism, inclined at a predetermined angle, including laterally spaced, opposed endless conveyor bands (24,26) (Fig. 3), and wheeled load carrying cart (10) (Figs. 1 and 2) having a frame (42,44), and having front, and back ends, the cart being provided with spaced apart first wheels (12,12) at one end and wheel means which has at least one wheel (14); the wheels being mounted for rotation on axles; and the conveyor mechanism having track means (20,22) for the respective sets of first and second wheels at opposite ends of the cart whereby the cart is maintained in a substantially horizontal orientation while engaged by the conveyor mechanism, the improvement comprising the conveyor bands (24,26) (see Fig. 3) being engageable with the cart closely adjacent the first wheels for controlling the advance of the cart along the conveyer mechanism.

Klockow et al. [the German Patent DE 2,456,791] does not show *a retaining track* extending lengthwise along the inclined conveyor mechanism and *an anti-lift* extending between the cart and the retaining track adjacent the other end of the cart.

However, the **British Patent [GB 1,256,484]** or **Engeler [the German Patent DE 2,009,806]**, as presented in section 6 above, shows *a retaining track* (5,5.1,5.2,16,17) (Figs. 2 and 5) extending lengthwise along the inclined conveyor mechanism and a vertical fork (4.2) (see Fig. 3) or a vertical retaining element, which can be considered as *an anti-lift*, extending between the cart and the retaining track adjacent the other end of the cart wherein the vertical

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fork (4.2) is fixed on the cart (4) and the retaining element *being separate from and extending downwardly to a point below the axles of the wheels* (see Figs. 2 and 5). Figure 3 shows the vertical fork (4.2) having a front arm (4.21) and a rear arm (4.22) and a drive chain (5,5.1) having brackets (5.2) and drive pins (15) to rest against the front arm (4.22) while the cart is moving upwardly. It appears that the front arm (4.21) would not help the cart as an anti-lift device. However, during the downward movement of the cart, the cart (4) rests with the rear arm (4.22) of the vertical fork on the drive pins (15) (see page 2, lines 88-97). The rear arm (4.22) of the vertical fork (4.2) would prevent a lifting of the cart by resting against the pin (15) during the downward movement of the cart. Therefore, the vertical fork (4.2) could be substantially considered as anti-lift element.

Accordingly, it would have been an obvious to one of the ordinary skill in the art at the time the invention was made to provide *a retaining track* and *an anti-lift element* on the German Patent's cart conveyor system [DE 2,456,791] as taught by the British Patent [GB 1,256,484] or Engeler [the German Patent DE 2,009,806], not only to guide and maintain the cart in the center line, but also to help maintain the stability and against lifting of the cart during the downward movement of the cart.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Klockow et al.** [the German Patent DE 2,456,791] and the British Patent [GB 1,256,484], as applied to claims 1 and 9 above, and further in view of the **Germany Patent [DE 3,431,402]**.

Klockow et al.' cart conveyor system [the German Patent DE 2,456,791] and the British Patent [GB 1,256,484], as presented in section 7 above, does show the cart (10) having a load-

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carrying frame including bottom-forming frame elements (42.44) inclined substantially at a predetermined angle when the first and second wheels are supported on the conveyor mechanism in a generally horizontal manner. However, the modified Klockow et al.' cart conveyor system [the German Patent DE 2,456,791] does not clearly show that *the predetermined angle* of the frame elements which has *the same predetermined angle* of the inclined conveyor mechanism.

However, **the Germany Patent [DE 3,431,402]** clearly shows *the predetermined inclined angle* (alpha) of the frame of the trolley (see Fig. 2) is the same as *the predetermined inclination or the slope* of the escalator or inclined conveyor mechanism (see the abstract).

Accordingly, it would have been an obvious to one of the ordinary skill in the art at the time the invention was made to provide *the predetermined inclined angle* (alpha) of the frame of the trolley (see Fig. 2) to be the same as *the predetermined angle* of the inclined conveyor mechanism on the Klockow et al.' modified cart conveyor system [DE 2,456,791] as taught by the Germany Patent [DE 3,431,402] in order to stably maintain the cart in a generally horizontal manner.

9. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Klockow et al. [the German Patent DE 2,456,791] and the British Patent [GB 1,256,484]**, as applied to claims 1 and 9 above, and further in view of **Decker et al. [US Patent 5,529,163]** or **Ackerson [US Patent 4,149,341]**.

Klockow et al.' cart conveyor system [DE 2,456,791] and the British Patent [GB 1,256,484], as presented in section 7 above, shows the conveyor mechanism having an entry and

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an exit end but it does not show *a load size limiting frame* at the entry end and the frame having a load greater than the cart.

However, **Decker et al. [US Patent 5,529,163]** shows a conveyor mechanism having an entry and an exit end (see Fig. 5) and including *a load size limiting frame* (36) at the entry end. It would have been an obvious to provide *a load size limiting frame* on the Weller's system as taught by Decker et al. in order to limit overload of the cart.

Ackerson [US Patent 4,149,341] also shows a security gate, which can be considered as a load limit frame, having a pair of spaced apart, upwardly extending side elements (16,16) a distance substantially greater than the maximum lateral spacing between the wheels of the cart defining an opening to allow the incoming cart (42) and also to prohibit the returning of the cart. Accordingly, it would have been an obvious to provide *a security gate or a load size limiting frame* on the entrance of Klockow et al.' cart conveyor system [DE 2,456,791] as taught by Ackerson [US Patent 4,149,341], not only allowing to go through the predetermined size of the incoming or forward carts, but also to prohibiting the cart in the reverse direction.

Allowable Subject Matter

10. Claims 31-36 are allowed.

11. Claims 16-20,23, and 24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Re claim 16, Klockow et al.' cart conveyor system [DE 2,456,791] *does not show* the conveyor bands (24,26) being engageable with the cart adjacent the first wheels thereof and *at a level not substantially higher than the first wheels* (Fig. 2) and a containment housing (40) spaced closely above and covering at least top portions of the conveyor bands (24,26) to

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accommodate and support load items projecting laterally from a load-carrying frame of the cart, and the load-carrying frame including front and back frame portions defining *a low point of the load-carrying frame at a level not substantially above the containment housing* (see Figs. 1 and 2).

12. Claims 5 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

13. Regarding Klockow et al. [the German Patent DE 2,456,791] in view of Engeler [the German Patent DE 2,009,806], the arguments are not persuasive. The applicant particularly argues a structural limitation of the “anti-lift element” of the German Patent [DE 2,009,806] and also adds new limitations “separate from and extending to a point below axles” and “engaging said retaining track” to distinguish the German Patent. The British Patent [GB 1,256,484] or Engeler [the German Patent DE 2,009,806] shows *a retaining track* (5,5.1,5.2,16,17) (Figs. 2 and 5) extending lengthwise along the inclined conveyor mechanism and a vertical fork (4.2) (see Fig. 3) or a vertical retaining element, which can be considered as *an anti-lift element*, extending between the cart and the retaining track adjacent the other end of the cart wherein the vertical fork (4.2) is fixed on the cart (4) and the retaining element *being separate from and extending downwardly to a point below the axles of the wheels* (see Figs. 2 and 5). Figure 3 shows the vertical fork (4.2) having a front arm (4.21) and a rear arm (4.22) and a drive chain (5,5.1) having brackets (5.2) and drive pins (15) to rest against the front arm (4.22) while the cart is moving upwardly. It appears that the front arm (4.21) would not help the cart as an anti-lift

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device. However, during the downward movement of the cart, the cart (4) rests with the rear arm (4.22) of the vertical fork on the drive pins (15) (see page 2, lines 88-97). The rear arm (4.22) of the vertical fork (4.2) would prevent a lifting of the cart by resting against the pin (15) during the downward movement of the cart. Therefore, the vertical fork (4.2) could be substantially considered as anti-lift element.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Applicant's amendment necessitated the new ground(s) of rejection (the additions of new limitations in claims 1,16,25,27, and 28) presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL T. CHIN whose telephone number is (703) 305-1524. The examiner can normally be reached on MON-THURS (7:30 -6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EILEEN LILLIS can be reached on (703) 308-3248. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

ptc
PTC
May 30, 2003


EILEEN D. LILLIS
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